

REMARKS

The Invention

This invention relates to a hazardous material storage facility or a modular hazardous material storage facility and, more specifically, to a hazardous material storage facility having a vent system with a sensor disposed below the container supporting floor.

Status of the Claims

Claims 1-21 are pending in the application.

Claims 1-4, 7-9, 11-17, 22 and 23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Romig* (U.S. Patent No. 6,305,131 B1) in view of *Westin et al.* (U.S. Patent No. 4,122,761) and *White* (U.S. Patent No. 5,005,227).

Claims 5 and 6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Romig* (U.S. Patent No. 6,305,131 B1) and *Westin et al.* (U.S. Patent No. 4,122,761) and *White* (U.S. Patent No. 5,005,227) as applied to Claims 1-4 and further in view of *Heintzelman et al.* (U.S. Patent No. 5,030,033).

Claim 10 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Romig* (U.S. Patent No. 6,305,131 B1) and *Westin et al.* (U.S. Patent No. 4,122,761) and *White* (U.S. Patent No. 5,005,227) as applied to Claims 1-3, and 7 and further in view of *Hawkins et al.* (U.S. Patent No. 5,597,392).

Claims 19 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Romig* (U.S. Patent No. 6,305,131 B1) and *Westin et al.* (U.S. Patent No. 4,122,761) and *White* (U.S. Patent No. 5,005,227) as applied to Claims 1-3 and further in view of *Rieger* (U.S. Patent No. 4,909,227).

Claim 21 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Romig* (U.S. Patent No. 6,305,131 B1), *Westin et al.* (U.S. Patent No. 4,122,761), *White* (U.S. Patent No. 5,005,227) and *Hawkins* (U.S. Patent No. 5,597,392) as applied to Claim 19 and further in view of *Heintzelman et al.* (U.S. Patent No. 5,030,033).

Claim 18 is objected to as being dependent from a rejected claim, but is otherwise allowable. Claim 18 has been amended to be in independent form and includes the recitations of each claim from which it formerly depended.

Claims 1-4, 7-9, 11-17, 22 and 23; Rejected under 35 U.S.C. § 103(a)

Claims 1-4, 7-9, 11-17, 22 and 23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Romig* (U.S. Patent No. 6,305,131 B1) in view of *Westin et al.* (U.S. Patent No. 4,122,761) and *White* (U.S. Patent No. 5, 005,227). *Romig* discloses a hazardous materials storage facility with sloped floors. As noted previously by the Applicant, U.S. Patent No. 6,305,131 B1 is incorporated into the present application. As such, several of the features of the present application are similar to the *Romig* reference, e.g. a sloped floor, an elongated basin, a drain, and a channel that may be sloped. *Romig* also mentions that various safety features of a hazardous materials storage building include vents, but no further details are given.

Westin discloses an elongated, rectangular container for transporting hazardous materials. The *Westin* container includes a grate-like loadbearing floor 17 disposed above leakproof tray 7 having two tunnels 10, 11 structured to allow a fork truck to lift the container. Thus, the tray 7 is split into sections. Above the tray 7 and the two tunnels 10, 11, but below the loadbearing floor 17, is a “canal” 18. Applicant notes that the “canal” in *Westin* is a planar open area that allows vapor to pass from one tray section to another and to the ventilation system, described below. Applicant further notes that this does not conform to the typical definition of “canal” as set forth in Merriam-Webster Online Dictionary, which states that a canal is “a tubular anatomical passage or channel [or] an artificial waterway for navigation or for draining or irrigating land.” Attached as Appendix 1, Exhibit 1: At one lateral side (as opposed to a longitudinal side) are pair of doors 4, 5. At the other lateral side is an end wall 3 supporting a ventilation system having a hood 22, a duct 19, and an exhaust fan 20.

The duct 19 is described as being “connected” to the canal. Applicant notes that “connect” is defined as, “to become joined <the two rooms connect by a hallway>” and

“to join or fasten together usually by something intervening.” See Merriam-Webster Online Dictionary attached as Appendix 1, Exhibit 2. Applicant further notes that the duct 19 is shown as extending from a location adjacent to the top of the end wall 3 to a point above the loadbearing floor 17. The hood 22 is the “something intervening” that “connects” the duct to the canal. Applicant further notes that the hood 22, as shown in Figure 2, extends from a position above the loadbearing floor 17 to a point parallel to the bottom of the loadbearing floor 17. As such, the hood 22 is not “beneath” the loadbearing floor 17.

Applicant further notes that a “duct,” as described and shown in the present application, is an elongated passage defined by a sidewall or sidewalls. Further, the duct 19 of *Westin* is shown as an elongated passage defined by a sidewall or sidewalls. Finally, Merriam-Webster Online Dictionary defines “duct” as “a pipe, tube, or channel that conveys a substance.” Attached as Appendix 1, Exhibit 3.

In view of the remarks and definitions set forth above, Applicant notes that nothing in either cited reference discloses, “at least one vent duct disposed beneath the upper floor.” That is, the Examiner has stated that *Romig* mentions a vent, but gives no details. Further, *Westin* discloses a “duct 19” that is disposed well above the “loadbearing floor 17” (which corresponds to the upper floor of the present application). Further, the hood 22 of *Westin* is also disposed above, or at most, parallel to, the upper floor. As such, neither reference discloses or suggests a duct that is *beneath* the upper floor.

Further, Applicant notes that the present application also discloses a vertically-extending passage for vapors located above the upper floor. This passage is identified as chimney 92. Thus, it appears that the Examiner has identified an element in the prior art, wherein the prior art uses the same designation, *i.e.*, “duct,” as is used in the present application, but where that element is equivalent to a different element in the present application, *i.e.*, the chimney. Applicant further notes that, as applicants act as their own lexicographers, and as the present application uses two different words to describe vapor passages, there is clearly a difference between a “duct” and a “chimney.”

Thus, Applicant disagrees with the Examiner's statement that *Westin* discloses a "duct." However, Applicant concedes that it is accurate to state that *Westin* discloses a chimney.

Further, based on the definition set forth above, Applicant also disagrees with the Examiner's assertion that, by virtue of disclosing "canal 18," *Westin* discloses a "channel." That is, as discussed in the specification of the present application, a "channel" is, "created by a U-shaped member 55, as shown in Fig. 3A. However, as shown in Fig. 3B, any shape channel, *e.g.*, a V-shaped channel, is acceptable." Specification at page 8, lines 2-4. Such an interpretation comports with the Merriam-Webster Online Dictionary, which defines a "channel" as "a long gutter, groove, or furrow [or] a metal bar of flattened U-shaped section." Attached as Appendix 1, Exhibit 4. As further set forth in the specification, this shape allows the "channel" to substantially concentrate any spilled liquid and the associated vapors in a discrete location within the facility. Conversely, the "canal" of *Westin* is the entire open space between the upper floor and the tray and between the side walls. Such a "canal" does not act to concentrate the fluid/vapors in a discrete portion of the container. Accordingly, Applicant disagrees with the Examiner that *Westin* discloses a "channel."

White discloses a composting toilet. The composting toilet includes a storage container disposed in a chamber below the toilet. The toilet includes a passage into the storage container for solid waste, and, the storage container includes a chimney, or vent pipe 22. The Examiner asserts that *White* teaches a "vent duct (14) *sic* below an upper surface for venting toxic gasses." April 1, 2008, Office Action at 3. Applicant note that the Examiner probably means "vent pipe 22." See Col. 3, line 63.

Leaving aside pre-adolescent jokes regarding toilets and toxic gasses, Applicant notes that a composting toilet is not a hazardous material storage facility and those skilled in the art of such facilities would be unlikely to be familiar with such devices. That is, Applicant believes that under 35 U.S.C. § 103(a), *White* is non-analogous art. That is, as set forth in *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992), "[i]n order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be *reasonably*

pertinent to the particular problem with which the inventor was concerned” (emphasis added). A reference is “reasonably pertinent” if, even though from a different field of endeavor, it is one that “logically would have commended itself to an inventor’s attention in considering his problem.” *In re Icon Health & Fitness, Inc.*, ___ USPQ2d ___, ___ (Fed. Cir. Aug. 1, 2007).

In *Oetiker*, the Applicant claimed an improvement in a hose clamp, which differed from the prior art in the presence of a preassembly “hook,” which maintained the preassembly condition of the clamp and disengaged automatically when the clamp was tightened. The claims were rejected on the basis of a reference, which disclosed a hook-and-eye fastener for use in garments. The rejection was based on the rationale that all hooking problems are analogous. The rejection, however, was overturned when the Court held the reference was not within the field of Applicant's endeavor and was not reasonably pertinent to the particular problem with which the inventor was concerned because it had not been shown that a person of ordinary skill, seeking to solve a problem of fastening a hose clamp, would reasonably be expected or motivated to look to fasteners for garments.

It is noted that in response to the July 20, 2007 Office Action and in relation to the prior rejection of Claim 10 over *Romig*, *Westin* and *Hawkins*, Applicant made a similar argument (and will present the argument again below) as *Hawkins* is also non-analogous art. In the “Response to Arguments” section of the April 1, 2008 Office Action, the Examiner ignores the discussion of *Oetiker* and the meaning of the holding and instead merely recites the quote set forth above. Applicant reminds the Examiner that simply finding a quote that *appears* to support a position is not equivalent to presenting law that *actually* supports a position. That is, in colloquial terms, *Oetiker* provides the rule that just because a reference mentions, or even discusses in detail, a particular element, that does not mean that the reference may be applied to all other application that recite a similar element, or even an element identified by the same name. Again, the *Oetiker* Court held that for a reference to be analogous art it must be shown that a person of

ordinary skill, seeking to solve a particular problem, would reasonably be expected or motivated to look to the cited reference.

Here, the Examiner has presented no evidence that those of ordinary skill in the art of hazardous material storage facility would be motivated to look to a composting toilet for guidance. That is, the fact that *White* mentions a “vent” does not automatically make the reference relevant to hazardous material storage facilities having vents. The Examiner must show that those skilled in the art of hazardous material storage facility would be motivated to look to a composting toilet for guidance as to how to vent gasses.

Moreover, even if *White* was analogous art, the Examiner has misinterpreted what *White* discloses. That is, in *White* the area in which the toxic gasses are maintained is the “waste receiving portion 39” of the tank 10. The vent pipe 22 extends upwardly, as a chimney, therefrom. Thus, while the toilet includes a few elements, *e.g.* the commode 15, disposed on a floor located above the tank 10, and while the lower end of the vent pipe 22 is disposed below this floor, *White* still teaches that, for a storage area for hazardous materials, *i.e.* “waste receiving portion 39,” a vent, *i.e.* “vent pipe 22,” should be disposed at the highest point relative thereto. That is, *White* teaches the exact opposite of having an exhaust vent disposed below the area in which hazardous materials are stored; *White* clearly shows that a vent should be located at the top of the hazardous material storage facility.

With regard to the determination of obviousness under 35 U.S.C. § 103, the Supreme Court has stated that:

Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, *it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.* This is so because inventions in most, if not all, instances rely on building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.

KSR International Co. v. Teleflex Inc., ___ U.S. ___, ___, 2007 WL 1237837 (2007), (Slip Opinion at 14-15) (emphasis added). In addition, the Supreme Court also noted that:

Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, *this analysis should be made explicit*. See *In re Kahn*, 441 F.3d 977, 988 (Fed Cir. 2006) (“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, *there must be some articulated reasoning with some rational underpinnings to support the legal conclusion of obviousness*”).

Id., at ___ (Slip Opinion at 14) (emphasis added). It is noted that the Supreme Court included an extended discussion reciting the nature of the inventions disclosed in the prior art and then several paragraphs identifying the rationale and reasons that the cited art could be combined and why one skilled in the art would make such a combination. *Id.*, at ___ (Slip Opinion at 3-6, 20-22).

With regard to combining known elements of an invention, the Supreme Court further stated that, “[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *Id.*, at ___ (Slip Opinion at 14). This holding comports with *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), which held that, although some of the cited references individually may have some of the claimed inventions’ features, “one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to depreciate the claimed invention.” *Id.* at 1075. Instead, to reach the proper conclusion under §103:

The decision maker must step backward in time and into the shoes worn by [a person having ordinary skill in the art] when the invention was unknown and just before it was made. In light of *all* the evidence, the decision maker must then determine whether...the claimed invention as a whole would have been obvious at *that* time to *that* person.

Id. at 1073-74. (emphasis added).

The Examiner has not properly supported the rejection under 35 U.S.C. § 103(a) and under *KSR International*. In the final Office Action, the Examiner has merely identified a list of selected elements recited in the present application and located various references, wherein elements with similar names are disclosed. The Examiner has not “made explicit” the reason such references would, or could, be combined as suggested. For example, both the “duct 19” from *Westin* and the “vent pipe 22” from *White* extend generally vertically and are disposed well above the area in which the hazardous materials are stored. It is not clear what would prompt one skilled in the art to move this duct to a location below the upper floor. As such, even a cursory analysis of the proposed combination reveals that an amalgamation of *Romig*, *Westin*, and *White* would, at best, result in the building of *Romig* having a *Westin/White*-like chimney. By not providing a detailed analysis, the Examiner has also failed to indicate how one skilled in the art would combine the sloped floors of *Romig*, which are structured to drain any spilled fluid to a central location, with the flat bottom trays of *Westin*, which are structured to maintain any spilled fluid below the container. Further, it is not clear how one skilled in the art could have a *Romig*-like sloped floor structured to drain any spilled fluid to a central location while incorporating the two “tunnels” of *Westin*. Such tunnels would block the flow of any spilled fluid and prevent the fluid from reaching the basin or other central location. As such, *Westin* actually teaches away from a structure such as *Romig*.

It is further noted that, after identifying a number of elements in the prior art having the same designation/name as elements recited in the claims of the present application, the Examiner merely states that, “[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to modify the hazardous material storage facility of *Romig* by including a vent and duct system such as the one taught by *Westin et al.* for venting a hazardous material storage facility and thereby extending a vent duct below the upper floor as taught by *White* in order to more effectively ventilate the facility. Merely identifying specific elements that various references disclose and

stating that they may be combined is not an “articulated reasoning with some rational underpinnings” sufficient to support the conclusion of obviousness. As set forth by the Court in *KSR International*, a “patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” In fact, the single sentence provided by the Examiner is the type of “mere conclusory statement” that the *KSR International* Court held cannot properly support a rejection under 35 U.S.C. § 103.

Independent Claim 1 recites, *inter alia*, at least one vent duct disposed beneath the upper floor and adjacent to the lower floor basin. As the Examiner has not properly supported the proposed combination, as that art cannot be combined as suggested, and as no reference discloses at least one vent duct disposed beneath the upper floor and adjacent to the lower floor basin, the rejection of Claim 1 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

Claim 2 depends from Claim 1 and relies upon its dependency for patentability.

Claim 3, which depends from Claim 2, further recites that the basin includes a channel. As the Examiner has not properly supported the proposed combination, as that art cannot be combined as suggested, and as no reference discloses a basin that includes a channel, the rejection of Claim 3 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

Claims 4, 7, and 8 depend directly or indirectly from Claim 3 and rely upon their dependency for patentability.

Claim 9, which depends from Claim 7, recites that the vent openings are disposed on the sides of the vent duct. None of the cited art discloses vent openings disposed on the sides of the vent duct. The Examiner states that “since the Applicant has not given an indication as to what is the bottom, top, or side of the vent duct, as such (*sic*) any portion of the vent duct can be considered a side.” Applicant notes that in the sentence quoted, the Examiner clearly can distinguish between a “top,” a “bottom” and a “side” and as such, these portions are clearly identifiable. However, for the sake of clarity, Claim 9 has been amended to indicate the openings are on the “lateral” sides of the vent

duct. Accordingly, as the Examiner has not properly supported the proposed combination, as that art cannot be combined as suggested, and as no reference discloses vent openings disposed on the sides of the vent duct, the rejection of Claim 9 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

Claim 11 depends from Claim 2 and relies upon its dependency for patentability.

Claim 12, which depends from Claim 11, further recites that the basin includes a channel. As the Examiner has not properly supported the proposed combination, as that art cannot be combined as suggested, and as no reference discloses a basin that includes a channel, the rejection of Claim 12 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

Claims 13 and 14 depend directly or indirectly from Claim 12 and rely upon their dependency for patentability.

Claim 15, which depends from Claim 14, further recites that the at least one duct includes two ducts and those ducts are disposed on opposite sides of the channel. As the Examiner contends that the *Westin* canal teaches the channel of the present invention, and as *Westin* discloses a hood extending across the width of the canal, it is not clear how or where one skilled in the art could add a second duct/hood. Accordingly, as adding a second duct is impossible given the *Westin* configuration, Applicant disagrees that adding a second duct involves only routine skill in the art. Further, as the Examiner has not properly supported the proposed combination, as that art cannot be combined as suggested, and as no reference discloses two ducts disposed on opposite sides of the channel, the rejection of Claim 15 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

Claim 16, which depends from Claim 3, further recites that the duct is disposed below the lower floor but above the bottom of the channel. As the *Westin* duct is shown as being above the upper floor, Applicant disagrees that one skilled in the art would find it obvious to move the duct not only below the upper floor, but below the lower floor as well, as stated by the Examiner. Moreover, as the Examiner contends that the *Westin* canal teaches the channel of the present invention, and as *Westin* discloses that the canal

extends from one side wall to the other side wall and to the bottom of the tray, thereby leaving no room to the sides of the canal, it would be impossible to move the *Westin* duct to a location below the second floor, as suggested by the Examiner. That is, as the “tray” of *Westin* is the second floor, and is at the bottom of the entire device, if one were to move the duct below the floor, it would no longer be in the *Westin* container.

Accordingly, as adding a duct disposed below the lower floor is impossible given the *Westin* configuration, Applicant disagrees that it would have been obvious to place a duct below the tray of *Westin*, as suggested by the Examiner. Further, as the Examiner has not properly supported the proposed combination, as that art cannot be combined as suggested, and as no reference discloses a duct disposed below the lower floor but above the bottom of the channel, the rejection of Claim 16 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

Claim 17, which depends from Claim 16, further recites that the at least one duct includes two ducts and those ducts are disposed on opposite sides of the channel. As that Examiner contends that the *Westin* canal teaches the channel of the present invention, and as *Westin* discloses a hood extending across the width of the canal, it is not clear how or where one skilled in the art could add a second duct/hood and have the duct located on the opposite side of the channel. Accordingly, as adding a second duct is impossible given the *Westin* configuration, Applicant disagrees that adding a second duct involves only routine skill in the art. Further, as the Examiner has not properly supported the proposed combination, as that art cannot be combined as suggested, and as no reference discloses two ducts disposed on opposite sides of the channel, the rejection of Claim 17 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

Claim 22, which depends from Claim 1, further recites that the duct is elongated and extends in a direction parallel to the axis of the basin. The Examiner contends that the axis of the *Westin* duct is parallel to the axis of the *Romig* basin. Applicant disagrees. The axis of the *Romig* basin is generally horizontal and the axis of the *Westin* duct is generally vertical. As such, the axis of the *Westin* duct is perpendicular to the axis of the *Romig* basin. Further, as the Examiner has not properly supported the proposed

combination, as that art cannot be combined as suggested, and as no reference discloses two ducts disposed on opposite sides of the channel, the rejection of Claim 22 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

Claim 23, which depends from Claim 7, further recites that the duct is elongated and extends in a direction parallel to the axis of the channel. The Examiner contends that placing the axis of the *Westin* duct parallel to the axis of the *Romig* channel would be obvious. Applicant disagrees. The axis of the *Romig* channel is generally horizontal and the axis of the *Westin* duct is generally vertical. As such, the axis of the *Westin* duct is perpendicular to the axis of the *Romig* basin and the Examiner does not indicate why one skilled in the art would alter this configuration. Further, as the Examiner has not properly supported the proposed combination, as that art cannot be combined as suggested, and as no reference discloses two ducts disposed on opposite sides of the channel, the rejection of Claim 23 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

Accordingly, the rejections of Claims 1-4, 7-9, 11-17, 22 and 23 under 35 U.S.C. § 103(a) as being unpatentable over *Romig* in view of *Westin et al.* and *White* is in error and should be withdrawn.

Claims 5 and 6; Rejected under 35 U.S.C. § 103(a)

Claims 5 and 6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Romig* (U.S. Patent No. 6,305,131 B1) and *Westin et al.* (U.S. Patent No. 4,122,761) and *White* (U.S. Patent No. 5,005,227) as applied to claims 1-4 and further in view of *Heintzelman et al.* (U.S. Patent No. 5,030,033).

Romig, *Westin* and *White*, their deficiencies and the reasons these references cannot be combined are set forth above. *Heintzelman* discloses a material containment system that includes a vault for storage tanks. *Heintzelman* further discloses that the vault is sealed (Col. 5, lines 25-36; Col. 8, lines 13-17) and an, inert gas atmosphere is provided (Col. 8, lines 43-48).

Simply put, it is impossible to combine a vented system, such as *Romig* and *Westin*, with a sealed assembly, such as *Heintzelman*. Thus, there is no possible way to include the vapor sensor in a sealed vault of *Heintzelman* with the vented systems of

Romig, Westin and White. As such, the Examiner is merely picking and choosing “among isolated disclosures in the prior art to depreciate the claimed invention.” This practice has been held to be improper and cannot support a rejection under 35 U.S.C. § 103(a). *See Fine*.

Further, as noted above, *KSR International* requires that the Examiner provide an “articulated reasoning with some rational underpinnings” sufficient to support the proposed combination. Here, the Examiner has again merely identified a number of components and asserted, in a single conclusory sentence, that such components can be combined. First, such a single sentence is not sufficient under *KSR International*. Second, such a conclusory sentence does not address how the reference could be combined. For example, the Examiner has not explained how one can keep the inert gas atmosphere within the *Heintzelman* device if one is drawing in air from the atmosphere, as disclosed in *Romig and Westin*.

Claim 5, which depends from Claim 4, recites, *inter alia*, a means for removing air and fumes from the facility. As the Examiner has not properly supported the proposed combination and as that art cannot be combined as suggested, the rejection of Claim 5 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

Claim 6 depends from Claim 5 and relies upon its dependency for patentability.

Accordingly, the rejections of Claims 5 and 6 under 35 U.S.C. § 103(a) as being unpatentable over *Romig* in view of *Westin et al.*, *White* and *Heintzelman et al.* is in error and should be withdrawn.

Claim 10; Rejected under 35 U.S.C. § 103(a)

Claim 10 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Romig* (U.S. Patent No. 6,305,131 B1), *Westin et al.* (U.S. Patent No. 4,122,761) and *White* (U.S. Patent No. 5,005,227) as applied to Claims 1-3, and 7 and further in view of *Hawkins et al.* (U.S. Patent No. 5,597,392). *Romig, Westin and White*, their deficiencies and the reasons these references cannot be combined are set forth above. *Hawkins*

discloses a register filter, wherein the register includes a damper. It is noted that *Hawkins* relates to registers for home heating and cooling systems.

As noted above and in the response to the prior Office Action, *Hawkins* is non-analogous art. A discussion of *Oetiker* is set forth above. In summary, *Oetiker* provides the rule that, just because a reference mentions, or even discusses in detail, a particular element, that does not mean that the reference may be applied to all other applications that recite a similar element, or even an element identified by the same name. Again, the *Oetiker* Court held that for a reference to be analogous art it must be shown that a person of ordinary skill, seeking to solve a particular problem, would reasonably be expected or motivated to look to the cited reference. Or, as stated in *In re Icon Health & Fitness, Inc.*, ___ USPQ2d ___, ___ (Fed. Cir. Aug. 1, 2007), “A reference is “reasonably pertinent” if, even though from a different field of endeavor, it is one that “logically would have commended itself to an inventor’s attention in considering his problem.” Here, the Examiner has presented no evidence that *Hawkins* discussion of a common household vent would “commended itself” to one skilled in the art of hazardous material storage facility.

Further, as noted above, *KSR International* requires that the Examiner provide an “articulated reasoning with some rational underpinnings” sufficient to support the proposed combination. Here, the Examiner has again merely identified a number of components and asserted, in a single conclusory sentence, that such components can be combined. First, such a single sentence is not sufficient under *KSR International*. Second, such a conclusory sentence does not address how the reference could be combined.

Accordingly, the rejection of Claim 10 under 35 U.S.C. § 103(a) as being unpatentable over *Romig* in view of *Westin et al.* and *Hawkins* is in error and should be withdrawn.

Claims 19 and 20; Rejected under 35 U.S.C. § 103(a)

Claims 19 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Romig* (U.S. Patent No. 6,305,131 B1), *Westin et al.* (U.S. Patent No. 4,122,761) and *White* (U.S. Patent No. 5,005,227) as applied to Claims 1-3 and further in view of *Rieger* (U.S. Patent No. 4,909,227). *Romig*, *Westin*, and *White*, their deficiencies and the reasons these references cannot be combined are set forth above. *Rieger* discloses a fireplace having an air inlet conduit disposed about the exhaust conduit. In this configuration, fresh air is brought into the combustion chamber from the outside. The air allows for combustion of the fuel and the smoke is exhausted via the exhaust conduit. This system allows for the inlet/exhaust to be separate from the air in the room/house heated. One advantage is that the warm house air is not drawn into the fireplace and exhausted. Further, by having the hot air exhaust pass through the inlet, the fresh air is heated, thereby recapturing a portion of the heat that would otherwise be exhausted.

It is generally understood that volatile vapors should be kept at cooler temperatures. As such, those skilled in the art of hazardous material storage facilities would not be likely to examine a reference wherein the improvement effects an increase of the heat in the system. That is, like *White* and *Hawkins*, *Rieger* is non-analogous art. Again, using the standard set forth in *Oetiker* and *Icon Health & Fitness*, a reference such as *Rieger* wherein the overall heat in the system is increased due to the invention is the opposite of the type of reference that “logically would have commended itself to an inventor’s attention” when designing a hazardous material storage facility.

Moreover, none of the references cited by the Examiner disclose a vent duct wherein the vent duct has an inlet above the floor and wherein the duct extends below the floor. As this element is missing entirely from the cited references, no combination of such references could reasonably be said to disclose the invention as recited in Claim 19.

Further, as noted above, *KSR International* requires that the Examiner provide an “articulated reasoning with some rational underpinnings” sufficient to support the proposed combination. Here, the Examiner has again merely identified a number of components and asserted, in a single conclusory sentence, that such components can be combined. First, such a single sentence is not sufficient under *KSR International*.

Second, such a conclusory sentence does not address how the reference could be combined.

Claim 19, which depends from Claim 3, recites, *inter alia*, an inner duct disposed within an outer duct. As the Examiner has not properly supported the proposed combination, as that art cannot be combined as suggested, and as the cited art does not disclose an inner duct disposed within an outer duct, the rejection of Claim 19 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

Claim 20 depends from Claim 19 and relies upon its dependency for patentability.

Accordingly, the rejection of Claims 19-20 under 35 U.S.C. § 103(a) as being unpatentable over *Romig* in view of *Westin et al.*, *White*, *Heintzelman*, and *Rieger* is in error and should be withdrawn.

Claim 21; Rejected under 35 U.S.C. § 103(a)

Claim 21 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Romig* (U.S. Patent No. 6,305,131 B1), *Westin et al.* (U.S. Patent No. 4,122,761), *White* (U.S. Patent No. 5,005,227) and *Hawkins* (U.S. Patent No. 5,597,392) as applied to Claim 19 and further in view of *Heintzelman et al.* (U.S. Patent No. 5,030,033). Each of these reference is discussed above and, for the reasons set forth above, this combination is also not taught or suggested by the prior art. That is, generally, when the five cited references relate to, respectively, a hazardous material storage facilities, a composting toilet, a fireplace and a sealed, underground containment facility, it would appear that the Examiner is merely locating various references that individually disclose elements similar to those elements recited in the claims of the present application and merely stating that these references may be combined. Such an approach to presenting a *prima facie* case for obviousness has been specifically rejected by *Fine* and that holding has be confirmed by *KSR International*. Moreover, *White*, *Hawkins*, and *Heintzelman* are each non-analogous art which, for the reasons set forth above, cannot be combined with the other references.

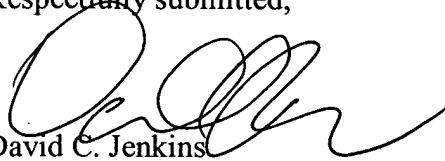
Accordingly, the rejection of Claim 21 under 35 U.S.C. § 103(a) as being unpatentable over *Romig* in view of *Westin et al.*, *White*, *Heintzelman*, and *Westin* is in error and should be withdrawn.

Applicant notes the definitions of “above” and “overhead” are to be entered into evidence and which may be needed at a later date. These definitions, which are found in the Merriam-Webster Online Dictionary, are attached as Exhibits 5 and 6 in Appendix 1.

CONCLUSION

In view of the remarks above, Applicant respectfully submits that the application is in proper form for issuance of a Notice of Allowance, and such action is requested at an early date.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'David C. Jenkins', written over the typed name.

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Attorney for Applicant

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canal [1,noun]
canal[2,transitive verb]
alimentary canal
birth canal
ear canal
haversian canal
resin canal
root canal
semicircular canal
spinal canal

Main Entry: **'ca-nal**

Pronunciation: \ka-'nal\

Function: *noun*

Etymology: Middle English, from Latin *canalis* pipe, channel, from *canna* reed
— more at [CANE](#)

Date: 15th century

- 1 : a tubular anatomical passage or channel : [DUCT](#)
- 2 : [CHANNEL](#), [WATERCOURSE](#)
- 3 : an artificial waterway for navigation or for draining or irrigating land
- 4 : any of various faint narrow lines on the planet Mars seen through telescopes and once thought by some to be [canals](#) built by Martians

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Search

connect

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connect
 connect-the-dots

Main Entry: **con·nect**

Pronunciation: \kə-'nekt\

Function: *verb*

Etymology: Middle English, from Latin *conectere*, *connectere*, from *com-* + *nectere* to bind

Date: 15th century

intransitive verb

1 : to become joined <the two rooms *connect* by a hallway> <ideas that *connect* easily to form a theory>

2 a : to meet for the transference of passengers <*connecting* flights> **b** : to transfer (as from one airplane to another) as a step in traveling to a final destination <passengers *connecting* with international flights>

3 : to make a successful hit, shot, or throw <*connected* for a home run> <*connected* on 60 percent of his shots — *New York Times*>

4 : to have or establish a rapport <tried to *connect* with the younger generation>

5 : to establish a communications connection <*connect* to the Internet>

transitive verb

1 : to join or fasten together usually by something intervening

2 : to place or establish in relationship

synonyms see [JOIN](#)

— **con·nect·able** *also* **con·nect·ible** \-'nek-tə-bəl\ *adjective*

— **con·nect·er** *also* **con·nect·er** \-'nek-tər\ *noun*

— **connect the dots** : to link together logically related elements in order to draw a conclusion <trying to *connect the dots* in the investigation>

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duct

9 entries found.

duct [1,noun]
duct [2,transitive verb]
bile duct
duct tape
ejaculatory duct
pancreatic duct
seminal duct
thoracic duct
Wolffian duct

Main Entry: **'duct** ⓘ

Pronunciation: **\ˈdəkt**

Function: *noun*

Etymology: New Latin *ductus*, from Medieval Latin, aqueduct, from Latin, act of leading, from *ducere* to lead — more at [TOW](#)

Date: 1667

1 : a bodily tube or vessel especially when carrying the secretion of a gland

2 **a** : a pipe, tube, or channel that conveys a substance **b** : a pipe or tubular runway for carrying an electric power line, telephone cables, or other conductors

3 : a tube or elongated cavity (as a xylem vessel) in plant tissue

4 : a layer (as in the atmosphere or the ocean) which occurs under usually abnormal conditions and in which radio or sound waves are confined to a restricted path

— **duc-tal** ⓘ **\ˈdək-təl** *adjective*

— **duct-less** ⓘ **\ˈdək(t)-ləs** *adjective*

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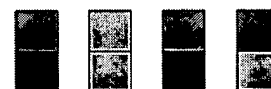
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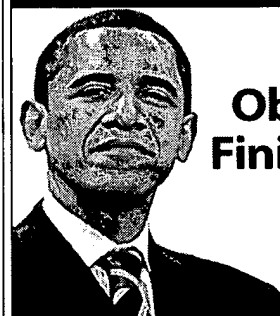
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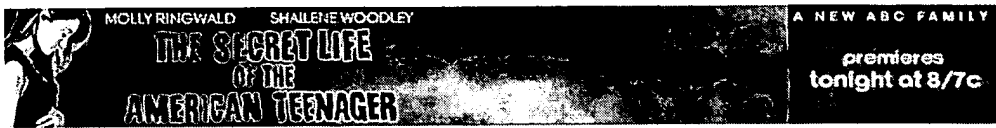
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channel

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[channel](#) [3,noun]

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Main Entry: **'chan-nel**

Pronunciation: \ˈcha-nəl\

Function: *noun*

Etymology: Middle English *chanel*, from Anglo-French, from Latin *canalis*
channel — more at [CANAL](#)

Date: 14th century

1 a : the bed where a natural stream of water runs **b :** the deeper part of a river, harbor, or strait **c :** a strait or narrow sea between two close landmasses **d :** a means of communication or expression: as (1) : a path along which information (as data or music) in the form of an electrical signal passes (2) *plural* : a fixed or official course of communication <went through established military *channels* with his grievances> **e :** a way, course, or direction of thought or action <new *channels* of exploration> **f :** a band of frequencies of sufficient width for a single radio or television communication **g :** [CHANNELER](#)

2 a : a usually tubular enclosed passage : [CONDUIT](#) **b :** a passage created in a selectively permeable cell membrane by a conformational change in membrane proteins; *also* : the proteins of such a passage — compare [ION CHANNEL](#)

3 : a long gutter, groove, or furrow

4 : a metal bar of flattened U-shaped section

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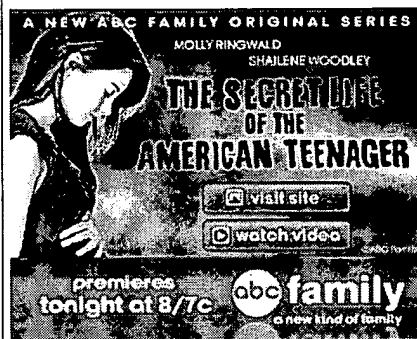
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above

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above[1,adverb]
 above[2,preposition]
 above[3,noun]
 above[4,adjective]
 above all
 over and above
 water[1,noun]

Main Entry: 'above ❶

Pronunciation: \ə-'bɒv\

Function: *adverb*

Etymology: Middle English, from Old English *abufan*, from *a-* + *bufan* above, from *be-* + *ufan* above; akin to Old English *ofer* over

Date: before 12th century

1 a : in the sky : **OVERHEAD** <the clouds *above*> **b :** in or to heaven

2 a : in or to a higher place **b :** higher on the same page or on a preceding page

c : **UPSTAIRS** **d :** above zero <10 degrees *above*>

3 : in or to a higher rank or number <30 and *above*>











4 *archaic* : in addition : **BESIDES**

5 : **UPSTAGE**

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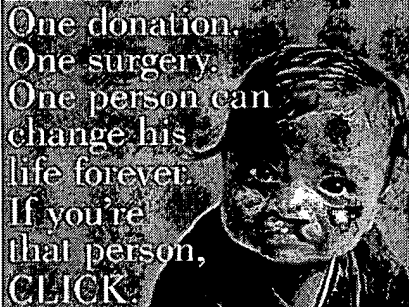
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overhead

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overhead[2,adjective]
overhead[3,noun]
overhead projector

Main Entry: **²over-head**

Pronunciation: \ˈō-vər-,hed\

Function: *adjective*

Date: 1874

1 a : operating, lying, or coming from above **b** : having the driving part above the part driven <valves operated by an *overhead* camshaft>

2 : of or relating to overhead <*overhead* costs>

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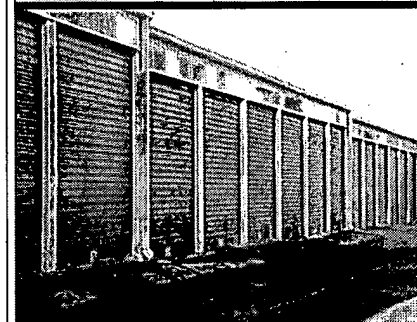
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